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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,479

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Thomas Holzhauer

HM-724

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EXAMINER

OMGBA, ESSAMA

ART UNIT

PAPER NUMBER

3726

NOTIFICATION DATE

DELIVERY MODE

07/22/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

INFO@LMIPLAW.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,479	<b>Applicant(s)</b> HOLZHAUER ET AL.	
	<b>Examiner</b> ESSAMA OMGBA	<b>Art Unit</b> 3726	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,8 and 10 is/are rejected.
- 7) ☒ Claim(s) 3,5,7,9 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/3/2011</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of JP 53028058 (JP'058) and Wilson (US Patent 3,433,045).

With regards to claim 1, Applicant, At page 1 of the specification to be known as AAPA, discloses a reel driver for rolling mills with an upper and a lower driving roll wherein the lower driving roll consists of a solid core made of steel with a wear-resistant layer formed by buildup welding, while the upper driving roll is a hollow roll made of steel with a wear-resistant layer formed by buildup welding. AAPA does not disclose the lower driving roll comprising a cast jacket mounted by adhesive bonding and/or shrink fitting and the upper driving roll having a cast jacket that is held by two clamping elements arranged on a shaft. However JP'058 teaches providing a cast jacket on rolls of a rolling mill wherein the cast jackets are mounted by shrink fitting, see abstract. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the lower and upper rolls of AAPA with cast jacket shrink fitted on roll cores, in light of the teachings of JP'058, in order to provide a roll that is manufactured simply and less expensively. Further Wilson teaches holding a

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jacket of a roll of a rolling mill between two clamping elements, see column 1, lines 43-69. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have held the cast jacket of the upper driving roll of AAPA/JP'058 between two clamping elements, in light of the teachings of Wilson, in order to achieve the benefits of using such clamping elements. Applicant should also note that the recitation of the cast jacket being mounted by adhesive and/or shrink fitting is a product-by-process limitation. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113.

Regarding claim 2, JP'058 teaches the cast jacket consisting of ductile iron (steel) and an outer working layer or roll shell. Applicant should note that the recitation of the working layer being produced by the centrifugal casting process is a product-by-process limitation and as such has not been given any patentable weight. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even

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though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113.

Regarding claims 4, 6 and 10, JP’058 teaches the working layer being made of cheaper metal than that of the cast jacket. Further it has been held to be within the general skill level of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA/JP’058/Wilson as applied to claim 2 above, and further in view of Kataoka (US Patent 5,316,596).

AAPA/JP’058/Wilson discloses a reel driver for rolling mills as shown above except for the working layer consisting of chromium alloy cast iron. However Kataoka teaches a roll for rolling mills with a working layer made from chromium alloy cast iron, see column 1, lines 17-21. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used chromium alloy cast iron as the working layer of the rolls of AAPA/JP’058/Wilson, in light of the teachings of Kataoka, in order to provide the roll with a suitable wear resistant working layer.

***Allowable Subject Matter***

4. Claims 3, 5, 7, 9 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

5. Applicant's arguments filed May 10, 2011 have been fully considered but they are not persuasive.

In response to Applicant's argument that JP'058 and Wilson do not provide any suggestion for modifying AAPA to arrive at the presently claimed invention because Jp'058 and Wilson both teach rolls with solid cores, the examiner submits that the use of solid or hollow cores in rolls is an obvious matter of design choice as long as the structural integrity of the roll is maintained. Rolls with hollow cores are usually used where a weight reduction is needed while taking care that the material of the hollow core is strong enough to withstand loads that the rolls are subjected to.

In response to Applicant's argument that there is no teaching in any of the references of a hollow roll that has a sleeve mounted on a shaft by clamping elements, and that since JP'058 and Wilson each uses only a single type of mounting a sleeve onto a shaft, it would not be obvious to mount both rolls with different types of mounting as in the present invention, the examiner submits that the arguments regarding the use of hollow rolls has been addressed above. Regarding the argument of both JP'058 and

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Wilson using a single type of mounting a sleeve onto a shaft, the examiner submits that it would have been obvious to try mounting the rolls using different types of mounting the sleeves with a reasonable expectation of success since the prior art teaches both types of mounting. It would have been obvious to arrive to the claimed invention through routine experimentation in view of the cited prior art.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ESSAMA OMGBA whose telephone number is (571)272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Essama Omgba/  
Primary Examiner, Art Unit 3726

eo  
July 18, 2011